

### Abstract of the Disclosure

Optimum movement of first and last signal pulses based on the data pattern is determined before data recording to record marks in the correct position.

- 5 A specific pattern signal is read from a disc track and digitized with an appropriate slice level by the digitizing circuit (115). A pulse position offset measuring circuit (120) then measures specific edge intervals in the resulting digital signal. Movement of the first and last pulse by the pulse moving circuit (110) is then set so that the offset between the measured edge interval and a predetermined standard
- 10 edge interval is ideally zero.